

We claim:

1. A method for detecting the presence of urease in a gastrointestinal system comprising:

5 grasping a sample of gastric material with a specimen-handling tool;  
contacting the gastric material with a first composition disposed in a first well of a carrier, the first composition comprising urea, the urea being capable of being converted into ammonia when contacted with urease; and  
thereafter contacting the gastric material with a second composition  
10 disposed in a second well of a carrier, the second composition comprising an indicator, the indicator being configured to indicate the presence of ammonia thereby indicating the presence of urease in the gastric material.

15 2. A method as defined in claim 1, wherein the urea is present as a powder in the first composition.

3. A method as defined in claim 2, wherein the urea has a mean particle size of less than about 0.1 mm.

20 4. A method as defined in claim 1, wherein the first composition further comprises an anti-caking agent.

25 5. A method as defined in claim 1, wherein the second composition comprises a gel.

6. A method as defined in claim 1, wherein the second composition comprises agar in addition to the indicator.

30 7. A method as defined in claim 1, wherein the indicator comprises a pH indicator that changes color when the pH is increased.

8. A method as defined in claim 1, wherein the second composition further comprises a bactericide.

9. A method as defined in claim 1, wherein the indicator comprising phenol red.

5 10. A method as defined in claim 1, wherein the second composition further comprises a buffering agent.

11. A method as defined in claim 2, wherein the second composition further comprises agar and a buffering agent.

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12. A method as defined in claim 1, wherein the gastric material is contacted with the first composition such that at least a portion of the urea is combined with the gastric material prior to being contacted with the second composition.

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13. A method as defined in claim 1, further comprising providing a carrier having a specimen-handling tool.

14. A method as defined in claim 13, the specimen-handling tool being disposed within at least a portion of the carrier.

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15. A method as defined in claim 1, further comprising providing a carrier having a first well and a second well.

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16. A method for detecting the presence of urease in a gastrointestinal system comprising:

grasping a sample of gastric material with a specimen-handling tool having a pair of arms;

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contacting the gastric material with a first composition disposed in a first well of a carrier, the first composition comprising urea, the urea being present as a powder and being capable of being converted into ammonia when contacted with urease, the urea having a mean particle size of less than about 0.1 mm, the gastric material being contacted with the first composition such that at least a portion of the urea is combined with the gastric material; and

thereafter contacting the gastric material with a second composition disposed in a second well of a carrier, the second composition comprising a buffering agent and a pH indicator that changes color when the pH of the second composition is increased, the indicator being configured to indicate the presence of ammonia thereby indicating the presence of urease in the gastric material.

17. A system for diagnostic testing comprising:

a carrier comprising a first well and a second well;  
a first composition disposed within the first well;  
a second composition disposed within the second well; and  
a specimen-handling tool disposed about at least a portion of one of the first and/or second wells.

18. The system as claimed in claim 17 further comprising at least one plug disposed in at least one well.

19. The system as claimed in claim 17 further comprising an overlying member positioned adjacent to the carrier so that the overlying member is disposed over at least a portion of one of the first and/or second wells.

20. The system as claimed in claim 19 further comprising a plug disposed in at least one of the wells, the plug being attached to the overlying member so that, when the overlying member is removed from the carrier, the plug is removed from the well.

21. The system as claimed in claim 18, the specimen-handling tool comprising a pair of cooperating arms.

22. The system as claimed in claim 21, each arm of the specimen handling tool comprising a tip portion and a rear portion, the arms being joined to each other at their rear portions to form a joined end.

23. The system as claimed in claim 22, at least one tip portion being formed as a flat surface.

24. The system as claimed in claim 22, the joined end being formed to include a  
5 narrow projection.

25. The system as claimed in claim 21, each arm further comprising a rearward arcuate portion.

10 26. The system as claimed in claim 21, each arm further comprising a forward arcuate portion.

15 27. The system as claimed in claim 26, each arm further comprising a rearward arcuate portion and an intermediate arcuate portion, the intermediate arcuate portion being disposed between the rearward arcuate portion and the forward arcuate portion.

20 28. The system as claimed in claim 17 further comprising indicia disposed on the carrier.

29. The system as claimed in claim 17, at least one of the wells having a frustoconical configuration.

25 30. The system as claimed in claim 17, the first composition comprising urea in powdered form, the urea being capable of being converted into ammonia when contacted with urease.

30 31. The system as claimed in claim 30, wherein the urea has a mean particle size of less than about 0.1 mm.

32. The system as claimed in claim 30, wherein the first composition further comprises an anti-caking agent.

33. The system as claimed in claim 17, the second composition comprising an indicator, the indicator being configured to indicate the presence of ammonia.

34. The system as defined in claim 33, wherein the second composition further  
5 comprises a gel.

35. The system as claimed in claim 34, wherein the second composition further comprises agar and a buffering agent, the second composition having a pH of less than about 6.5.

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36. The system as claimed in claim 33, wherein the indicator comprises phenol red.

37. A system for diagnostic testing comprising:

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a carrier comprising a first well and a second well;

a first composition comprising urea in powdered form, the first composition being disposed within the first well, the urea being capable of being converted into ammonia when contacted with urease;

20 a second composition comprising an indicator, the second composition being disposed within the second well; and

means for handling a specimen, such means disposed about at least a portion of the well.

38. The system as claimed in claim 37, the means for handling a specimen  
25 comprising a specimen-handling tool.

39. The system as claimed in claim 37, the specimen-handling tool comprising a pair of cooperating arms, each arm of the specimen-handling tool comprising a tip portion and a rear portion, the arms being joined to each other at their rear  
30 portions.

40. The system as claimed in claim 39, the specimen-handling tool further comprising a rearward arcuate portion, a forward arcuate portion, and an

intermediate arcuate portion disposed between the rearward arcuate portion and the forward arcuate portion, the arcuate portions being configured so that the area disposed between the pair of arms is approximately hour-glass in shape.

5 41. A diagnostic system comprising:

a carrier comprising a first well, a second well, and a cavity;

a first composition comprising urea in powdered form, the first composition being disposed within the first well, the urea being capable of being converted into ammonia when contacted with urease;

10 a second composition comprising an indicator, the second composition being disposed within the second well; and

a specimen-handling tool adapted to manipulate a specimen, the specimen-handling tool being adapted to fit within the cavity of the carrier so that the specimen-handling tool is disposed about at least a portion of one of the first and/or second wells.

42. A system for diagnostic testing comprising:

a carrier comprising a first well;

20 a composition for the detection of *Helicobacter pylori* disposed within the first well; and

a specimen-handling tool disposed about at least a portion of the first well.

43. The system as claimed in claim 42, the composition comprising urea in powdered form, the urea being capable of being converted into ammonia when contacted with urease.

44. The system as claimed in claim 43, wherein the urea has a mean particle size of less than about 0.1 mm.

30 45. The system as claimed in claim 43, wherein the composition further comprises an anti-caking agent.

46. The system as claimed in claim 43, the composition further comprising an indicator, the indicator being configured to indicate the presence of ammonia.

47. The system as claimed in claim 46, the indicator comprising phenol red.

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48. The system as claimed in claim 42 further comprising an overlying member positioned adjacent to the carrier so that the overlying member is disposed over at least a portion of the first well.

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49. The system as claimed in claim 42, the specimen-handling tool comprising a pair of cooperating arms.

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50. The system as claimed in claim 49, each arm of the specimen handling tool comprising a tip portion and a rear portion, the arms being joined to each other at their rear portions to form a joined end.